

Part 2 – Technical Requirements



Application under the *Agricultural Operation Practices Act* for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

NRCB USE ONLY	Application number <u>RA24014</u>	Legal land description <u>SE 8-41-26 W4M</u>
<input type="checkbox"/> Approval <input type="checkbox"/> Registration <input checked="" type="checkbox"/> Authorization <input type="checkbox"/> Amendment		

APPLICATION DISCLOSURE

This information is collected under the authority of the *Agricultural Operation Practices Act (AOPA)*, and is subject to the provisions of the *Freedom of Information and Protection of Privacy Act*. This information is public unless the NRCB grants a written request that certain sections remain private.

Any construction prior to obtaining an NRCB permit is an offence and is subject to enforcement action, including prosecution.

I, the applicant, or applicant's agent, have read and understand the statements above, and I acknowledge that the information provided in this application is true to the best of my knowledge.

MAR 18 / 2024
 Date of signing
NIELSEN FARMS LTD
 Corporate name (if applicable)

Signature
JEFF NIELSEN
 Print name

GENERAL INFORMATION REQUIREMENTS

Proposed facilities: list all proposed confined feeding operation facilities and their dimensions. Indicate whether any of the proposed facilities are additions to existing facilities. (attach additional pages if needed)

Proposed facilities	Dimensions (m) (length, width, and depth)
104 FREE STALL BARN FOR PREGNAT HEIFERS (Bred Heifers Barn)	262 FT x 60 FT - (79.9 m x 18.3 m)

Existing facilities: list ALL existing confined feeding operation facilities and their dimensions

Existing facilities	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
SEE PERMIT # RA 10007		
FREE STALL BARN	264 FT X 112 FT	Verified
MILKING PARLOR + CALF BARN	132 FT X 92 FT	Verified
DRY COW + CLOSE UP BARN	132 FT X 92 FT	Verified
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Existing dairy CFO with 400 milking cows plus replacements		

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If a new facility is replacing an old facility, please explain what will happen to the old facility and when. N/A

Construction completion date for proposed facilities ~~IAA~~ OCT 2025

Additional information

Livestock numbers: Complete only if livestock numbers are different from what was identified in the Part 1 application. Note: if livestock numbers increase in your Part 2 application, a new Part 1 application must be submitted which may result in a loss of priority for minimum distance separation (MDS).

Livestock category and type (Available in the Schedule 2 of the Part 2 Matters Regulation)	Permitted number	Proposed increase or decrease in number (if applicable)	Total
AO Comments:			
Dairy cows plus replacements	400	0	400

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DECLARATION AND ACKNOWLEDGMENT OF APPLICANT CONCERNING WATER ACT LICENCE issued by Alberta Environment and Protected Areas (EPA) for a confined feeding operation (CFO) *Date and sign one of the following four options*

OPTION 1: Applying through the NRCB for both the AOPA permit and the Water Act licence

I **DO** want my water licence application coupled to my AOPA permit application.

Signed this ____ day of _____, 20____.

Signature of Applicant or Agent

OPTION 2: Processing the AOPA permit and Water Act licence separately

1. I (we) acknowledge that the CFO will need a new water licence from EPA under the *Water Act* for the development or activity proposed in this AOPA application.
2. I (we) request that the NRCB process the AOPA application **independently** of EPA's processing of the CFO's application for a water licence.
3. In making this request, I (we) recognize that, if this AOPA application is granted by the NRCB, the NRCB's decision will not be considered by EPA as improving or enhancing the CFO's eligibility for a water licence under the *Water Act*.
4. I (we) acknowledge that any construction or actions to populate the CFO with livestock pursuant to an AOPA permit in the absence of a *Water Act* licence will **not** be relevant to EPA's consideration of whether to grant the *Water Act* licence application.
5. I (we) acknowledge that any such construction or livestock populating will be at the CFO's sole risk if the *Water Act* licence application is denied or if the operation of the CFO is otherwise deemed to be in violation of the *Water Act*. This risk includes being required to depopulate the CFO and/or to cease further construction, or to remove "works" or "undertakings" (as defined in the *Water Act*).
6. **AS RELEVANT:** I (we) acknowledge that the CFO is located in the South Saskatchewan River Basin and that, pursuant to the *Bow, Oldman and South Saskatchewan River Basin Water Allocation Order* [Alta. Reg. 171/2007], this basin is currently closed to new surface water allocations.
7. **Provide:** Water licence application number(s) _____

Signed this ____ day of _____, 20____.

Signature of Applicant or Agent

OPTION 3: Additional water licence not required ✓

1. I (we) declare that the CFO will not need a new licence from EPA under the *Water Act* for the development or activity proposed in this AOPA application.
2. **Provide:** Water license number(s) or water conveyance agreement details 41172, 93385+
1670051

Signed this 11 day of MARCH, 2024.

Signature of Applicant or Agent

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OPTION 4: Uncertain if Water Act licence is needed; acknowledgement of risk (for existing CFOs only)

1. At this time, I (we) do not know whether a new water licence is needed from EPA under the *Water Act* for the development or activity proposed in this AOPA application.
2. If a new *Water Act* licence is needed, I (we) request that the NRCB process the AOPA application **independently** of EPA's processing of the CFO's application for a water licence.
3. In making this request, I (we) recognize that, if this AOPA application is granted by the NRCB, the NRCB's decision will not be considered by EPA as improving or enhancing the CFO's eligibility for a water licence under the *Water Act*.
4. I (we) acknowledge that any construction or actions to populate the CFO with additional livestock pursuant to an AOPA permit in the absence of a *Water Act* licence will **not** be relevant to EPA's consideration of whether to grant my *Water Act* licence application, if a new water licence is needed.
5. I (we) acknowledge that any such construction or livestock increase will be at the CFO's sole risk if the *Water Act* licence application is denied or if the operation of the CFO is otherwise deemed to be in violation of the *Water Act*. This risk includes being required to depopulate the CFO and/or to cease further construction, or to remove "works" or "undertakings" (as defined in the *Water Act*).
6. **AS RELEVANT:** I (we) acknowledge that the CFO is located in the South Saskatchewan River Basin and that, pursuant to the *Bow, Oldman and South Saskatchewan River Basin Water Allocation Order* [Alta. Reg. 171/2007], this basin is currently closed to new surface water allocations.
7. **Provide:** Water license number(s) or water conveyance agreement details _____

Signed this ____ day of _____, 20____.

Signature of Applicant or Agent

North



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GENERAL ENVIRONMENTAL INFORMATION

(complete this section for the worst case of the existing facility which is the closest to water bodies or water wells and for each of the proposed facilities)

Facility description / name (as indicated on site plan)

Existing: MILKING PARLOR + FREE STALL

Proposed 1: BARN PREGNANT HEIFER BARN

Proposed 2: _____

Proposed 3: _____

Facility and environmental risk information		Facilities				NRCB USE ONLY	
		Existing	Proposed 1	Proposed 2	Proposed 3	Meets requirements	Comments
Flood plain information	What is the elevation of the floor of the lowest manure storage or collection facility above the 1:25 year flood plain or the highest known flood level?	<input checked="" type="checkbox"/> >1 m <input type="checkbox"/> ≤ 1 m <i>plus 1(m)</i>	<input checked="" type="checkbox"/> >1 m <input type="checkbox"/> ≤ 1 m	<input type="checkbox"/> >1 m <input type="checkbox"/> ≤ 1 m	<input type="checkbox"/> > 1 m <input type="checkbox"/> ≤ 1 m	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	>1 m
	Surface water information	How many springs are within 100 m of the manure storage facility or manure collection area?	0	0		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	None observed during a site visit
	How many water wells are within 100 m of the manure storage facility or manure collection area?	2	0		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	Two WWs located w/i 100 m of existing barns, but further away from the proposed barn.	
	What is the shortest distance from the manure collection or storage facility to a surface water body? (e.g., lake, creek, slough, seasonal)	800	800		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	Slough located SE of the CFO towards QE II highway	
Groundwater information	What is the depth to the water table?		3 m		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	>3 m	
	What is the depth to the groundwater resource/aquifer you draw water from?	280 ft	280 ft		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	UGR identified at 17.7 m	

Additional information (attach supporting information, e.g. borehole logs, records, etc. you consider relevant to your application)

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ENVIRONMENTAL RISK SCREENING INFORMATION

ERST for **proposed** facilities

Facility	Groundwater score	Surface water score	File number
Pregnant/Heifer Barn	Low	Low	RA24014

ERST for **existing** facilities

Facility	Groundwater score	Surface water score	File number
EMS	Low	Low	RA15024
Dairy barn	Low	Low	RA15024
Open front sheds and pens	Low	Low	RA15024
Dry/close up & fresh cows barn	Low	Low	RA15024

ERST related comments:

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WATER WELL AND SURFACE WATER INFORMATION

Well IDs: 41172, 93385 and 1670051

Surface water related concerns from directly affected parties or referral agencies: YES NO

Groundwater related concerns from directly affected parties or referral agencies: YES NO

Water wells N/A

If applicable, exemption for 100 m distance requirements applied: YES NO Condition required: YES NO

Surface water N/A

If applicable, exemption for 30 m distance requirements applied: YES NO Condition required: YES NO

Water Well Exemption Screening Tool N/A

Water Well ID	Preliminary Screening Score	Secondary Screening Score	Facility

Groundwater or surface water related comments:

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DISTANCE OF ANY MANURE STORAGE FACILITY (EXISTING OR PROPOSED) TO NEIGHBOURING RESIDENCES

Neighbour name(s)	Legal land description	Distance (m)	NRCB USE ONLY				
			Zoning (LUB) category	MDS category (1-4)	Distance (m)	Waiver attached (if required)	Meets regulations
LONNIE + MERLO SUTZLE	NW 8 41 26 W4	500	Agriculture	1	406		Yes
ROB + BONNIE SMITH	SW 8 41 26 W4	600	Agriculture	1	500		Yes
	NW-8-41-26 W4	160	Agriculture	1	160		Yes (*)

LAND BASE FOR MANURE AND COMPOST APPLICATION (complete only if an increase in livestock or manure production will occur)

Name of land owner(s)*	Legal land description	Usable area** (ha)	Soil zone ***	NRCB USE ONLY	
				Usable area (ha)	Agreement attached (if required)
Total					

* If you are **not** the registered landowner, you must attach copies of land use agreements signed by all landowners.

** Available manure spreading area (excluding setback areas from residences, common bodies of water, water wells, etc. as identified in Agdex 096-5 [Manure Spreading Regulations](#))

*** Brown, dark brown, black, grey wooded, or irrigated

Additional information (attach any additional information as required)

(*) See next page

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NRCB USE ONLY

MINIMUM DISTANCE SEPARATION

Methods used to determine distance (if applicable): Google Earth

Margin of error (if applicable): _____

Requirements (m): Category 1: 449 Category 2: 599 Category 3: 749 Category 4: 1,198

Technology factor: YES NO

Expansion factor: YES NO

MDS related concerns from directly affected parties or referral agencies: YES NO

There is a residence located 160 m away from the CFO that constructed about five years ago, many years after the dairy CFO started its operation, and therefore, according to Section 8 of Standards and Administration Regulation, the MDS does not apply with respect to that residence. Additionally, the new barn will be constructed away and in the opposite direction from that residence.

LAND BASE FOR MANURE AND COMPOST APPLICATION

Land base required: N/A for applications for an authorization

Land base listed: _____

Area not suitable: _____

Available area: _____

Requirement met: YES NO

Land spreading agreements required: YES NO

Manure management plan: YES NO If yes, plan is attached:

PLANS

Submitted and attached construction plans: YES NO

Submitted aerial photos: YES NO

Submitted photos: YES NO

GRANDFATHERING

Already completed: YES NO N/A

If already completed, see Approval RA08035

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NRCB USE ONLY

ALL SIGNATURES IN FILE

YES NO

DATES OF APPROVAL OFFICER SITE VISITS

April 15, 2024	

CORRESPONDENCE WITH MUNICIPALITIES AND REFERRAL AGENCIES

Date deeming letters sent: March 19, 2024

Municipality: Lacombe County

letter sent response received written/email verbal no comments received

Alberta Health Services: N/A

letter sent response received written/email verbal no comments received

Alberta Environment and Parks: N/A

letter sent response received written/email verbal no comments received

Alberta Transportation: N/A

letter sent response received written/email verbal no comments received

Alberta Regulatory Services: N/A

letter sent response received written/email verbal no comments received

Other: Atco Gas and Pipelines N/A

letter sent response received written/email verbal no comments received

Other: _____ N/A

letter sent response received written/email verbal no comments received

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SOLID MANURE, COMPOST, & COMPOSTING MATERIALS: Barns, feedlots, & storage facilities - Concrete liner

(complete a copy of this section for EACH barn, feedlot, and storage facility for solid manure, composting materials, or compost with a concrete liner)

Facility description / name (as indicated on site plan) 1. PREGNANT HEIFER BARW
 2. _____

Manure storage capacity

	Length (m)	Width (m)	Depth below grade to the bottom of the liner (m)	NRCB USE ONLY Estimated storage capacity (m ³)
1.	262 FT (79.9 m x 18.3 m)	60 FT	0	
2.				
TOTAL CAPACITY				

I plan to use a short-term solid manure storage (STMS) as part of my manure storage and handling plan for this CFO. The AOPA requirements for STMS are set out in the NRCB [Short-Term Solid Manure Storage Requirements Fact Sheet](#).

Surface water control systems

Describe the run-on and runoff control system

ROOFS + WALLS

Liner protection

Describe how the physical integrity of the liner will be maintained

INSPECT FOR CRACKS.

NRCB USE ONLY
 Requirements met: YES NO

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SOLID MANURE, COMPOST, & COMPOSTING MATERIALS: Barns, feedlots, & storage facilities - Concrete liner (cont.)

Concrete liner details

Concrete thickness 5 INCHES	Method of sulphate protection: TYPE 50
Concrete strength 28 mpa	Concrete reinforcement size and spacing 16 INCHES ONC (10mm)
<p>Concrete requirements can be found in Technical Guideline Agdex 096-93 Guideline minimums: Solid manure: 25MPa (D) Solid manure (wet): 30MPa (C) Method of sulphate protection: Type 50 or Type 10 with fly ash or equivalent</p>	<p>NRCB USE ONLY</p> Requirements met: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Condition required: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Report attached: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

Additional Information (attach as required)

NRCB USE ONLY

Nine month manure storage volume requirements met YES YES With STMS NO

Depth to water table: >3 m Requirements met: YES NO

Depth to Uppermost groundwater resource: 17.7 m Requirements met: YES NO

ERST completed: see ERST page for details

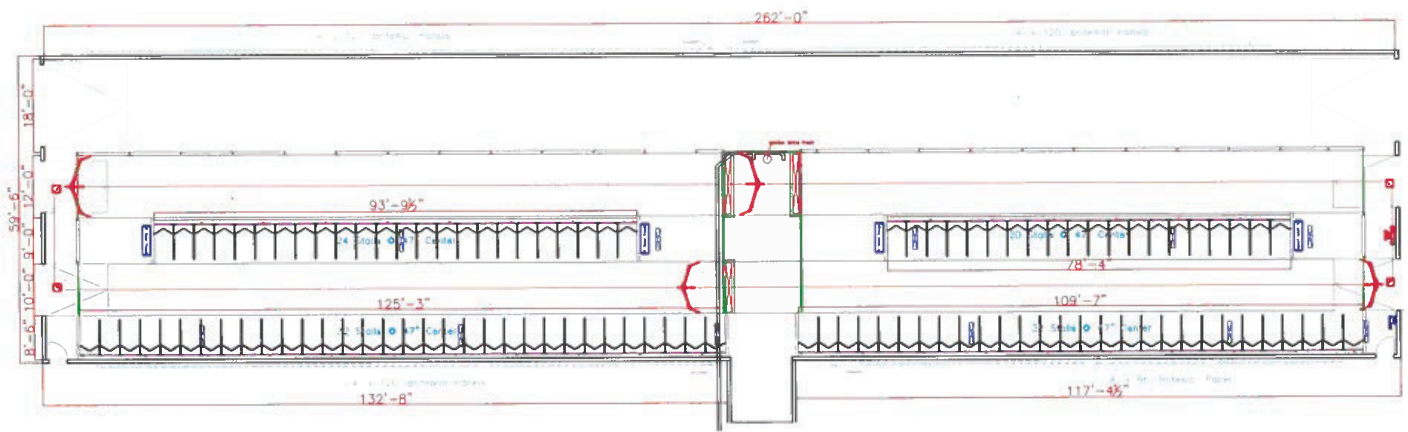
Surface water control systems

Requirements met: YES NO Details/comments:

Concrete liner details

A condition will be included in the authorization requiring the permit holder to provide written proof that the constructed concrete liner meets the requirements under the technical guideline

Leakage detection system required: YES NO If yes, please explain why.



NO.	DESCRIPTION	DATE

Customer Information
 Name Nielsen Farms
 Project 2024 South Heifer Barn
 Location Lacombe, AB

Notes

Drawn By Paul Templeman
 Contact Info 403-885-2527
 paul@chinookfarm.com
 Date March 13, 2024
 Scale 1:1 Sheet 1 of 1

